Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1.   (Currently amended) A machine tool <u>arranged to machine an object from material that is being processed and</u> having a material-remover, said material-remover having at least two degrees of freedom of ~~movement,~~ <u>movement</u> and at an instant being arranged to <u>move with a speed and to</u> remove an amount of material, ~~up to a depth of cut,~~ <u>up to a depth of cut</u> from <u>the</u> material that is being processed, processing circuitry being provided and arranged to control the movement of said material-remover <u>including being arranged to control said depth of cut,</u> ~~said processing circuitry determine a path along which said material-remove should move, and in determining said path said processing circuitry allowing said depth of cut made by the material-remover to vary.~~ <u>the processing circuitry further comprising a track planner arranged to associate one or more tracks around the perimeter of the object to be machined, the or each said track comprising a locus of paths bounded by the minimum and maximum depths of cut that the material-remover can be controlled along around the object in a single pass, the processing circuitry being further arranged to determine the path along which the material-remover is caused to move from within the or each track, allowing said depth of cut to vary such that a predetermined speed is maintained as the material-remover moves along the determined path.</u>

2.   (Currently amended) The machine tool of claim 1 in which the machine<u> tool</u> is a milling machine.

3.   (Original) The machine tool of claims 1 in which the material-remover of the machine tool is arranged to rotate about an axis.

4.   (Currently amended) The machine tool of claim 1 in which the processing circuitry is arranged to attempt to move the material-remover such that the magnitude of ~~its velocity~~ <u>the velocity of the material-remover</u> is roughly constant.

5.   (Cancelled)

6.   (Currently amended) The machine tool of any of claim 1 in which the ~~processing circuitry comprises a~~ track planner is arranged to associate one or more contours around the perimeter of an object to be machined, the or each said contour comprising a line within the or each track ~~locus of all the possible material remover paths around the object.~~

7.   (Currently amended) The machine tool of claim ~~5~~1 in which the track planner is capable of producing ~~produces~~ tracks that are of variable width.

8.   (Currently amended) The machine tool of claim ~~5~~1 in which the processing circuitry further comprises a node associator arranged to associate a number of nodes with predetermined points around ~~the~~ the or each track ~~and/or contour that has been calculated~~.

9.   (Currently amended) The machine tool of claim 8 in which the node associator is arranged to associate nodes~~points~~ with corners of ~~the~~ the or each track ~~and/or contour~~.

10.   (Currently amended) The machine tool of claim 8 in which the or each track comprises an inside edge region and an outside edge region, said inside edge being shorter than said outside edge region and in which the node associator is arranged to associate ~~predetermined~~ nodes with the inside edge region of ~~the~~ the or each track.

11.   (Currently amended) The machine tool of claim 10 in which the node associator is arranged to associate other predetermined nodes with the outside edge region of the track.

12.   (Currently Amended) The machine tool of claim ~~claims~~ 8 in which the processing circuitry further comprises a curve associator arranged to associate a curve with each of the nodes produced by the node associator.

13.   (Currently amended) The machine tool of claim 12 in which ~~the~~ each curve associated with ~~the~~ a node by the curve associator has a radius corresponding to the minimum radius of a path of the material-remover of the machine tool.

14. (Currently amended) The machine tool of claim 12 in which the curve associator is arranged to reduce the radius of one or more of ~~the~~ the or each curves ~~curves~~ if curves ~~centred~~ centered on opposite edge regions ~~sides~~ of ~~the~~ the or each track intersect one another to block ~~the~~ the or each track.

15. (Original) The machine tool of claim 12 in which the curve associator is arranged to associate more than one node with any one curve.

16. (Cancelled)

17. (Currently amended) The machine tool of claim 12 in which the curve ~~association~~ associator is arranged to associate circles, or portions of circles with each of the nodes.

18. (Currently amended) The machine tool of claims 12 in which the processing circuitry further comprises a tangent generator arranged to generate tangents to form ~~associate~~ a path between each of the curves that the path ~~it~~ contacts.

19. (Currently amended) The machine tool of claim 18 in which the processing circuitry is arranged to convert the tangents generated by the tangent generator together with portions of ~~the~~ the or each curve provided by the curve associator into a path for the material remover.

20. (Original) The machine tool of claim 1 in which the processing circuitry is arranged to generate paths that form a closed loop around the object to be fabricated.

21. (Currently amended) The machine tool of claim 1 in which the processing circuitry is arranged to produce a series of paths such that ~~an~~ the object can be ~~fabricated~~ machined from a block of material.

22. (Currently amended) A method of removing material from a block of material to fashion an object therefrom, said method comprising plotting a path for a material-remover of a machine tool, said path being optimised by allowing the depth of a cut made by the material remover to vary, the method further comprising building up at least one contour and/or track around the perimeter of the object to be fashioned, the or each of said contours and/or tracks providing an indication of the material that is possible for the material remover to remove in a series of passes.

23. (Original) The method of claim 22 in which an attempt is made to move the material-remover at roughly a constant speed.

24. (Currently amended) The method of claim 22 which further comprises calculating a track around the perimeter of an object to be ~~machined~~ fashioned.

25. (Currently amended) The method of claim 22 in which at least one of ~~further comprises calculating a contour around the perimeter of an object to be machined,~~ said at least one contour is displaced from the object by a predetermined amount.

26. (Cancelled)

27. (Currently amended) The method of claim 24 which further comprises generating a plurality of nodes and associating ~~a number of nodes with~~ said nodes with predetermined points around the or each track and/or contour previously calculated.

28. (Currently amended) The method of claim 27 which further comprises assigning said track an inside edge and an outside edge, said inside edge being shorter than said outside edge and associating a predetermined number of said pluraltiy of nodes with the inside edge of the track previously determined.

29. (Currently amended) The method of claim 28 which further comprises associating predetermined nodes with the outside edge of the track previously determined.

30. (Currently amended) The method of claim 27 which further comprises associating a curve with each of the nodes previously generated.

31.   (Currently amended) The method of claim 30 in which ~~the~~ the or each curve has a radius corresponding to the minimum cutting radius of the material remover of the machine tool.

32.   (Cancelled)

33.   (Currently amended) The method of claim 30 which further comprises plotting a path comprising a tangent between the or each ~~of the curves~~ curve, together with a portion of one or more of ~~the~~ the or each curve.

34.   (Currently amended) The method of ~~claims~~ claim 30 which further comprises reducing the ~~radii~~ radius of a curve ~~curves~~ associated with ~~the nodes~~ a node if the curve extends beyond the track.

35.   (Currently amended) The method of ~~claims~~ claim 22 which generates one or more paths that form closed loops around the object to be ~~fabricated~~ fashioned.

36.   (Original) A computer readable medium coded with instructions to cause a computer to perform the method of claim 22.

37.   (Currently amended) A computer readable medium coded with instructions that when loaded into a machine tool cause the machine tool to be controlled ~~it to function~~ as claimed in claim 1.

38.   (Cancelled)

39.   (Currently amended) A machine tool arranged to machine an object from material that is being processed and having a material-remover, said material-remover having at least two degrees of freedom of movement, and at an instant being arranged to remove an amount of material, up to a depth of cut, from material that is being processed, processing circuitry being provided and arranged to control the movement of said material-remover, said processing circuitry determining a path along which said material-remover should move, and in determining said path, ~~path~~ said processing circuitry allowing said depth of cut to be made by the material-remover to vary, ~~vary~~ the processing circuitry further comprising a track planner arranged to associate one or more contours around the perimeter of an object to be machined, the or each said contour comprising a locus of ~~all~~ the paths ~~possible~~

-8-

~~material-remover paths~~ the material-remover can be controlled along around the object, the processing circuitry further comprises a node associator arranged to associate a number of nodes with predetermined points around the track that has been associated, the processing circuitry further ~~comprises~~ comprising a curve associator arranged to associate a curve with each of the nodes produced by the node associator, the processing circuitry further comprises a tangent generator arranged to associate a path between each of the curves generated by the curve associator, ~~associator~~ wherein the processing circuitry is arranged to convert the tangents generated by the tangent generator together with portions of the curves provided by the curve associator into a path for the material remover.

40.   (Currently amended) A method of removing material from a block of material to fashion an object therefrom, said method comprising plotting a path for a material removing means of a machine tool, said path being optimised by allowing the depth of a cut to be made by the material removing means to vary.

41.   (New) The machine tool of claim 1 in which the material-remover is arranged to rotate about an axis and in which the depth of cut is defined in a direction radial to the rotation.

42.   (New) The machine tool of claim 6 in which the processing circuitry further comprises a node associator arranged to associate a number of nodes with predetermined points around the or each contour.

43.   (New) The machine tool of claim 42 in which the node associator is arranged to associate nodes with corners of the or each contour.